

### **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions, and listings, of claims in the application.

#### **Listing of Claims:**

1. (Currently Amended) A liquid crystal display device, comprising:
  - a first substrate having an inner surface and an outer surface;
  - a second substrate having an inner surface and an outer surface, wherein the inner surface of the second substrate faces and is faced apart from the inner surface of the first substrate;
  - a retardation film arranged on the inner surface of the second substrate;
  - a first polarizing film on the outer surface of the first substrate;
  - a layer of liquid crystal material arranged between the first and second substrates;
  - a backlight unit proximate to the outer surface of the second substrate;
  - a cholesteric liquid crystal polarizing film arranged between the second substrate and the backlight unit, wherein the cholesteric liquid crystal polarizing film includes a first portion adjacent to the backlight unit, a second portion adjacent to the outer surface of the second substrate, and a third portion between the first and second portions, wherein the first portion includes a first pitch, wherein the second portion includes a second pitch, wherein the third portion includes a third pitch, wherein a value of the third pitch is between values of the first and second pitches.
2. (Original) The device according to claim 1, wherein the first pitch is greater than the second pitch.

3. (Original) The device according to claim 1, further comprising a cholesteric liquid crystal color filter layer arranged on the inner surface of the second substrate.
4. (Original) The device according to claim 3, wherein the cholesteric liquid crystal color filter layer reflects light having a polarization state that is opposite light reflectable by the cholesteric liquid crystal polarizing film.
5. (Original) The device according to claim 4, wherein the cholesteric liquid crystal color filter layer reflects left-handed circularly polarized light; and the cholesteric liquid crystal polarizing film reflects right-handed circularly polarized light.
6. (Original) The device according to claim 4, wherein the cholesteric liquid crystal color filter layer reflects right-handed circularly polarized light; and the cholesteric liquid crystal polarizing film reflects left-handed circularly polarized light.
7. (Original) The device according to claim 3, wherein  
each of the first and second substrates include red, green, and blue pixel regions;  
a portion of the cholesteric liquid crystal color filter layer arranged in the red pixel region transmits a red light;  
a portion of the cholesteric liquid crystal color filter layer arranged in the green pixel region transmits a green light; and  
a portion of the cholesteric liquid crystal color filter layer arranged in the blue pixel region transmits a blue light.

8. (Original) The device according to claim 7, wherein
- the cholesteric liquid crystal color filter layer includes a first cholesteric liquid crystal layer and a second cholesteric liquid crystal layer;
- a portion of the first cholesteric liquid crystal layer arranged within the red pixel region has a pitch for reflecting green light;
- a portion of the second cholesteric liquid crystal layer arranged within the red pixel region has a pitch for reflecting blue light;
- a portion of the first cholesteric liquid crystal layer arranged within the green pixel region has a pitch for reflecting blue light;
- a portion of the second cholesteric liquid crystal layer arranged within in the green pixel region has a pitch for reflecting red light;
- a portion of the first cholesteric liquid crystal layer arranged within the blue pixel region has a pitch for reflecting red light; and
- a portion of the second cholesteric liquid crystal layer arranged within the blue pixel region has a pitch for reflecting green light.
9. (Original) The device according to claim 1, further comprising a retardation film arranged between the first polarizing film and the liquid crystal layer.
10. (Original) The device according to claim 9, wherein the liquid crystal layer has an optically compensated birefringence (OCB) mode.
11. (Currently Amended) The device according to claim 1, further comprising:  
~~a retardation film arranged on the inner surface of the second substrate; and~~

a second polarizing film arranged on the retardation film.

12. (Original) The device according to claim 11, wherein light is linearly polarizable by the first and second polarizing films.

13. (Currently Amended) The device according to claim ~~[[11]]~~ 1, further comprising a cholesteric liquid crystal color filter layer arranged between the retardation film and the second substrate.

14. (Original) The device according to claim 13, wherein the liquid crystal layer has a twisted nematic (TN) mode.

15. (Original) The device according to claim 13, wherein the retardation film and the second polarizing film are arranged on the cholesteric liquid crystal color filter layer.

16. (Original) The device according to claim 13, wherein the cholesteric liquid crystal color filter layer reflects light having a polarization state that is opposite light reflectable by the cholesteric liquid crystal polarizing film.

17. (Original) The device according to claim 16, wherein  
the cholesteric liquid crystal color filter layer reflects left-handed circularly polarized light; and

the cholesteric liquid crystal polarizing film reflects right-handed circularly polarized light.

18. (Original) The device according to claim 16, wherein

the cholesteric liquid crystal color filter layer reflects right-handed circularly polarized light; and

the cholesteric liquid crystal polarizing film reflects left-handed circularly polarized light.

19. (Original) The device according to claim 18, wherein

each of the first and second substrates include red, green, and blue pixel regions;

a portion of the cholesteric liquid crystal color filter layer arranged in the red pixel region transmits a red light;

a portion of the cholesteric liquid crystal color filter layer arranged in the green pixel region transmits a green light; and

a portion of the cholesteric liquid crystal color filter layer arranged in the blue pixel region transmits a blue light.

20. (Original) The device according to claim 19, wherein

the cholesteric liquid crystal color filter layer includes a first cholesteric liquid crystal layer and a second cholesteric liquid crystal layer;

a portion of the first cholesteric liquid crystal layer arranged within the red pixel region has a pitch for reflecting green light;

a portion of the second cholesteric liquid crystal layer arranged within the red pixel region has a pitch for reflecting blue light;

a portion of the first cholesteric liquid crystal layer arranged within the green pixel region has a pitch for reflecting blue light;

a portion of the second cholesteric liquid crystal layer arranged within in the green pixel region has a pitch for reflecting red light;

a portion of the first cholesteric liquid crystal layer arranged within the blue pixel region has a pitch for reflecting red light; and

a portion of the second cholesteric liquid crystal layer arranged within the blue pixel region has a pitch for reflecting green light.

21. (Currently Amended) A liquid crystal display, comprising:

a first substrate having an inner surface and an outer surface;

a second substrate having an inner surface and an outer surface, wherein the inner surface of the second substrate faces and is spaced apart from the inner surface of the first substrate;

a cholesteric liquid crystal color filter layer arranged on the inner surface of the second substrate;

a retardation film arranged on the inner surface of the second substrate;

a backlight unit proximate to the outer surface of the second substrate;

a cholesteric liquid crystal polarizing film having a first portion adjacent to the backlight unit and a second portion adjacent to the outer surface of the second substrate, wherein

the first portion has a first helical pitch, wherein the second portion has a second helical pitch, different from the first helical pitch; and

the cholesteric liquid crystal color filter layer reflects light having a polarization state that is opposite light reflectable by the cholesteric liquid crystal polarizing film.

22. (Original) The liquid crystal display according to claim 21, wherein the first pitch is greater than the second pitch.

23. (Original) The liquid crystal display according to claim 21, wherein the cholesteric liquid crystal polarizing film further includes a third portion adjacent the first and second portions.

24. (Original) The liquid crystal display according to claim 23, wherein the third portion has a third helical pitch, intermediate the first and second helical pitches.

25. (Original) The liquid crystal display according to claim 21, wherein the cholesteric liquid crystal polarizing film has an ordinary refractive index of about 1.5.

26. (Original) The liquid crystal display according to claim 21, wherein the cholesteric liquid crystal polarizing film has an extra-ordinary refractive index of about 1.68.

27. (Original) The liquid crystal display according to claim 21, wherein the cholesteric liquid crystal polarizing film has thickness of about 30  $\mu\text{m}$ .

28. (Original) The liquid crystal display according to claim 21, wherein  
the cholesteric liquid crystal color filter layer reflects left-handed circularly polarized light; and  
the cholesteric liquid crystal polarizing film reflects right-handed circularly polarized light.

29. (Original) The liquid crystal display according to claim 21, wherein  
the cholesteric liquid crystal color filter layer reflects right-handed circularly polarized light; and  
the cholesteric liquid crystal polarizing film reflects left-handed circularly polarized light.

Claim 30 (Canceled).

31. (Currently Amended) The liquid crystal display according to claim ~~[[30]]~~ 21, further comprising a polarizing film arranged on the retardation film.

32. (Original) The liquid crystal display according to claim 31, wherein light is linearly polarizable by the polarizing film.

33. (Original) The liquid crystal display according to claim 31, further comprising a layer of liquid crystal material arranged between the inner surface of the first substrate and the polarizing film.

34. (Original) The liquid crystal display according to claim 21, wherein  
each of the first and second substrates include red, green, and blue pixel regions;  
a portion of the cholesteric liquid crystal color filter layer arranged in the red pixel region transmits a red light;  
a portion of the cholesteric liquid crystal color filter layer arranged in the green pixel region transmits a green light; and



a portion of the cholesteric liquid crystal color filter layer arranged in the blue pixel region transmits a blue light.

35. (Original) The liquid crystal display according to claim 34, wherein

the cholesteric liquid crystal color filter layer includes a first cholesteric liquid crystal layer and a second cholesteric liquid crystal layer;

a portion of the first cholesteric liquid crystal layer arranged within the red pixel region has a pitch for reflecting green light;

a portion of the second cholesteric liquid crystal layer arranged within the red pixel region has a pitch for reflecting blue light;

a portion of the first cholesteric liquid crystal layer arranged within the green pixel region has a pitch for reflecting blue light;

a portion of the second cholesteric liquid crystal layer arranged within in the green pixel region has a pitch for reflecting red light;

a portion of the first cholesteric liquid crystal layer arranged within the blue pixel region has a pitch for reflecting red light; and

a portion of the second cholesteric liquid crystal layer arranged within the blue pixel region has a pitch for reflecting green light.